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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/077,095	02/14/2002	Nikhil Jain	020128	1421
23696	7590	05/18/2004	EXAMINER	
Qualcomm Incorporated Patents Department 5775 Morehouse Drive San Diego, CA 92121-1714			HOANG, THAI D	
			ART UNIT	PAPER NUMBER
			2667	
DATE MAILED: 05/18/2004				

*[Handwritten number 9]*

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/077,095

Applicant(s)

JAIN ET AL.

Examiner

Thai D Hoang

Art Unit

2667

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE \_\_\_\_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 04/22/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-10,18,20-22,24,26 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-10,18,20-22,24,26 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1, 3, 6-8, 18-19, 21-22 and 24 are rejected under 35 U.S.C. 102(a) as being unpatentable over Wiedeman et al, US patent no. 6,233,463 B1, hereafter referred to as Wiedeman.

Regarding claim 1, Wiedeman discloses a system configured for supporting wireless communication between a code division multiple access (CDMA) and both a GSM core infrastructure (elements 32, 36, figures 5-8B) and an IS-41 core infrastructure (elements 30, 34, figures 5-8B), comprising:

a plurality of base stations 5 (BSs) and base station controller 54 (BSC); figs. 7-8). In the system disclosed by Wiedeman the gateway 10 is connected to ground data network (GDN) by links 20, 28 and PSTN/ISDN by link 3 (figures 5-8). Nevertheless, Wiedeman discloses that the system can operate with protocols and air interface standards, such as analog (e.g., AMPS), time division multiple access (TDMA), code division multiple access (CDMA), and combinations of these access types; col. 4, lines 18-24; col. 5, lines 64-67; col.12, lines 48-56. Therefore, the system disclosed by Wiedeman is clearly a CDMA RAN;

a first circuit communicating with the CDMA wireless signal, the first circuit communicating with the IS-41 core infrastructure (34, 44) using IS-41 protocol; and

a second circuit communicating with the CDMA wireless signal, the second circuit communicating with the GSM core infrastructure (36, 48) using GSM protocol (col. 12, line 45- col. 13, line 60).

Regarding claims 3 and 8, Wiedeman does not explicitly disclose that the message is a location message. However, Wiedeman teaches that the system can detect a roaming user (col. 5, lines 1-59). It indicates that the system receives location message from the roaming user.

Regarding claim 6, Wiedeman discloses that the system configured for supporting wireless communication between a code division multiple access (CDMA) and both a GSM core infrastructure and an IS-41 core infrastructure, comprising:

a state machine selectively configurable to communicate with the IS-41 core infrastructure using IS-41 protocol (34, 44) or with the GSM core infrastructure using GSM protocol (36, 48), based on at least one identifier received from at least one MS.

Regarding claim 7, the system disclosed by Wiedeman inherently selects the first or the second circuit base on at least one message (user ID and/or location, and/or protocol...) from a mobile station, because the system cannot service for the mobile station without receiving at least one message from the mobile station to detect roaming or protocol type of the mobile station (col. 5, lines 1-59.)

Regarding claim 18, Wiedeman discloses that the system communicates with a first wireless mobile station (MS) having a subscription in a GSM core infrastructure (36,

48) and with a second wireless MS having a subscription in a CDMA infrastructure (34, 44) without requiring either MS to have more than a single subscription. Wiedeman discloses that the system comprises the step of:

receiving at least one identifier from at least one MS and based on the identifier, determining the core infrastructure in which the MS has a subscription

undertaking authentication with the MS using information from the core infrastructure in which the MS has a subscription (fig. 6A-8B; col. 12, line 45 – col. 14, line 26, col. 17, lines 12-53); and

collecting accounting data using the core infrastructure in which the MS has a subscription (billing system 58).

Regarding claim 19, Wiedeman disclose that the interface 40 of the system receives wireless CDMA signal (col. 12, lines 52-54; col. 14, lines 25-27)

Regarding claim 21, Wiedeman discloses that the system receives an accounting data of an MS from the billing system (58).

Regarding claim 22, Wiedeman discloses that the method comprises the step of: using GSM protocol when the MS has a subscription in the GSM core infrastructure, and otherwise using IS-41 protocol when the MS has a subscription in the CDMA core infrastructure (fig. 6A-8B; col. 12, line 45 – col. 14, line 26, col. 17, lines 12-53.)

Regarding claim 24, the user terminal 7 (figs. 1 and 4) in the system disclosed by Wiedeman inherently comprises a storage device storing user identifier; a radio unit transmits and receives CDMA or GSM radio signal T1 and S1 to/from satellite and/or BS (col. 4, lines 53-55; col. 12, lines 21-25. Furthermore, Wiedeman's system

comprises a Home Location Register (HLR) and Visitor Location Register (VLR) to service worldwide roaming. Wiedeman discloses in figures 5-8 that the BSC 54 (or gateway 10) transmits and receives CDMA signal to and from user terminals 7s (UTs). The communications traffic to and from the UTs 7 flows via the CDMA RF Interface System (CRFIS) 40 to a billing system 58 via a Control Data Adapter (CDA) 60, to the GDN 26 via Base Station Manager 62, as well as to the call control processor CCP/VLR 38. The CCP/VLR 38 includes the local VLR, which is connected to the GSM MAP network 32 and thence to various GSM HLRs 50; col. 12, lines 45-59; col. 13, lines 25-44; col. 13, line 61-col. 14, line 2.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4-5, 9-10, 20, 26-27 rejected under 35 U.S.C. 103(a) as being unpatentable over Wiedeman in view of Bright et al, US Patent Application Publication No. 2002/0094811 A1, hereafter referred to as Wiedeman and Bright respectively.

Regarding claims 4 and 9, Wiedeman does not disclose that the location message includes an international mobile subscriber identifier (IMSI). However, Bright discloses a method and system for interworking and interoperability between GSM and another wireless system (figure 3). Bright discloses that the MS (356) performs a GPRS location update using its IMSI (col. 6, paragraph [0051]). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to adapt IMSI disclosed by Bright into the Wiedeman's system in order to improve service for customers because the serviced area for the customers is expanded.

Regarding claims 5 and 10, Wiedeman does not disclose that the system uses the IMSI to determine in which core infrastructure the MS has a subscription. However, Bright discloses that the system uses the IMSI to determine in which core infrastructure the MS has a subscription (figure 5; paragraph [0053]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt IMSI disclosed by Bright into the Wiedeman's system in order to improve service for customers as mentioned in claim 4.

Regarding claims 20 and 26-27 Wiedeman does not explicitly disclose that the identifier is an IMSI. However, the system disclosed by Bright teaches that the system uses IMSI to update location of a user. It would have been obvious to one of ordinary skill in the art at the time the invention was made to adapt IMSI disclosed by Bright into the Wiedeman's system in order to improve service for customers as mentioned in claim 4.

### ***Response to Arguments***

Applicant's arguments filed on 04/22/2004 have been fully considered but they are not persuasive.

In the remarks pages 7-8, Applicants argue that Wiedeman does not teach a CDMA RAN. Examiner respectfully disagrees because of the following reasons:

First, a RAN (Radio Access Network), technically, comprises one or a plurality of base stations (BSs) and base station controllers (BSCs). It allows a wireless network connects and communicates with other systems connected through a core network (CN), such as circuit switching system, packet switching system, PSTN, IP... The system disclosed by Wiedeman includes BSs 5 and BSC 54 (figs. 7-8). The BSC 54 (or gateway 10) in the Wiedeman's system is connected to ground data network (GDN) by links 20, 28 and PSTN/ISDN by link 3 (figures 5-8). In addition, Wiedeman discloses that the system can operate with protocols and air interface standards, such as analog (e.g., AMPS), time division multiple access (TDMA), code division multiple access (CDMA), and combinations of these access types; col. 4, lines 18-24; col. 5, lines 64-67; col.12, lines 48-56. Thus, the system disclosed by Wiedeman clearly comprises elements of the CDMA RAN; and performs as a CDMA RAN functions.

Second, according to the specification on page 4, paragraph [0021], Applicants disclose "the CDMA RAN includes base stations and base station controllers". Therefore, the system disclosed by Wiedeman clearly comprises a CDMA RAN as explained in previous paragraph.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following references are cited to further show the state of the art with respect to the application:



Denman et al., US Patent No. 6490451 B1, disclose "System and method for providing packet-switched telephony."

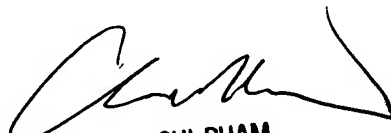
Rinne et al., US Patent No. 6574473 B2, disclose "Method and system for controlling radio communications network and radio network controller."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (703) 305-4378. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thai Hoang

  
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